Most Current Section 303(d) Listed Waters - Linear Events

Metadata also available as

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- [Identification_Information](#)
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- [Entity_and_Attribute_Information](#)
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Identification_Information:
> *Citation:*
>> *Citation_Information:*
>>> *Originator:* US EPA
>>> *Publication_Date:* 20020401
>>> *Title:* Most Current Section 303(d) Listed Waters - Linear Events
> *Description:*
>> *Abstract:*
>>> River segments, lakes, and estuaries designated under Section 303(d) of the Clean Water Act. Each State will establish Total Maximum Daily Loads (TMDLs) for these waters. Most Current 303(d) Waterbodies coded onto route.rch (Transport and Coastline Reach) feature of NHD to create Linear Events.
>> *Purpose:*
>>> To be used to identify the spatial extent of waters listed under §303(d). These waters can be linked to the Most Current §303(d) information stored in the EPA TMDL Tracking System for query and display. The ENTITY_ID field in the event table can be linked to the LIST_ID in the EPA's TMDL tracking system.

>> *Supplemental_Information:*
>>> Procedures Used: State Water Quality Agencies supplied EPA's Office of Water lists of waters reported under §303(d). These lists contained text which identified the locations of individual waters on their list. Many states also submitted GIS coverages and/or maps that outlined the spatial extent of their listed waters. These

base materials were used by EPA to code the spatial extent onto the route.rch (Transport and Coastline Reach) feature of NHD to create NHD - Linear Events. Using the EPA NHD Reach Indexing Tool (NHD-RIT), event tables were created by conflating the state's data to NHD reaches and the reaches were attributed with the §303(d) identifiers supplied by the states. Some reaches are also displayed offset from the original reach - this is done to display each TMDL on a state's list as a separate entity. So if 2 TMDLs on a state's list are actually in the same spatial location, one is shown offset from the actual reach. Revisions: The event tables were sent to each state for review and comment. The format of the reviewed data was state dependent. Formats consisted of hardcopy maps, shapefiles or coverages with events. In many cases, modifications were noted by the State and then corrections were made by RTI.

Related_Spatial_and_Tabular_Data_Sets: The EPA Most Current TMDL Tracking System contains relevant data that links to this shapefile. The ENTITY_ID field in the event table can be linked to the LIST_ID in the EPA's TMDL tracking system.

Time_Period_of_Content:
    Time_Period_Information:
        Single_Date/Time:
            Calendar_Date: 2002
            Time_of_Day: Unknown
    Currentness_Reference: Current as of April 1, 2002
Status:
    Progress: In work
    Maintenance_and_Update_Frequency: Monthly as needed.
Spatial_Domain:
    Bounding_Coordinates:
        West_Bounding_Coordinate: -180
        East_Bounding_Coordinate: -60
        North_Bounding_Coordinate: 80
        South_Bounding_Coordinate: 0
Keywords:
    Theme:
        Theme_Keyword_Thesaurus: None
        Theme_Keyword: Impaired waters, §303(d), TMDL, reach indexing, NHD
    Place:
        Place_Keyword_Thesaurus: None
        Place_Keyword: US, National
    Temporal:
        Temporal_Keyword_Thesaurus: None
        Temporal_Keyword: Most current, 2000, 2001, 2002
Access_Constraints: Password protected until review is complete.
Use_Constraints:

This website is designed for state review of Clean Water Act Section 303(d) spatial data. Research Triangle Institute (RTI), under contract with EPA, georeferenced (or indexed) the states' impaired waters to the National Hydrography Dataset (NHD). EPA would like each state to have the opportunity to review the indexing work. Reviewers are asked to assess the accuracy of WQS reach indexing (georeferencing) efforts. More specifically, reviewers are asked to evaluate whether designated uses are assigned to the appropriate reaches and to assess the accuracy of the locational information.

Point_of_Contact:
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Security_Information:
> *Security_Classification_System:* None
> *Security_Classification:* UNCLASSIFIED
> *Security_Handling_Description:* None

Native_Data_Set_Environment:
> Windows NT, Windows 2000, ArcView 3.2 (used in conjunction with the Reach Indexing Tool (RIT) and the National Hydrography Dataset (NHD), and the Water Quality Standards Database (WQSDB), which contains designated use information as it was assigned by the States.

Data_Quality_Information:
> *Logical_Consistency_Report:* Chain-node topology present
> *Completeness_Report:* State review underway and RTI changes being made.
> *Positional_Accuracy:*
>> *Horizontal_Positional_Accuracy:*
>>> *Horizontal_Positional_Accuracy_Report:*
>>>> Statements of horizontal positional accuracy are based on accuracy statements made for USGS topographic quadrangle maps. These maps were compiled to meet National Map Accuracy Standards. For horizontal

accuracy, this standard is met if at least 90 percent of points tested are within 0.02 inch (at map scale) of their true positions. Additional offsets to positions may have been introduced where there are many features to improve the legibility of map symbols. In addition, the digitizing of maps is estimated to contain a horizontal positional error of less than or equal to 0.003-inch standard error (at map scale) in the two component directions relative to the source maps. Visual comparison between the map graphic (including digital scans of the graphic) and plots or digital displays of points, lines, and areas is used to assess the positional accuracy of digital data.

Linear features of the same type along the adjoining edges of data sets are aligned if they are within a 0.02-inch tolerance (at map scale). To align the features, the midpoint between the end of the corresponding features is computed, and the ends of features are moved to this point. Features outside the tolerance are not moved; instead, a feature of the type connector was added to join the features.

For more information, see the National Hydrography Dataset Concepts and Contents document (February 2000) available at <http://nhd.usgs.gov/chapter1/index.html>.

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report:

Statements of vertical positional accuracy for elevation of water surfaces are based on accuracy statements made for USGS topographic quadrangle maps. These maps were compiled to meet National Map Accuracy Standards. For vertical accuracy, this standard is met if at least 90 percent of well-defined points tested are within one-half contour interval of the correct value. Elevations of water surface printed on the published map meet this standard; the contour intervals of the maps vary. These elevations were transcribed into the digital data; the accuracy of this transcription was checked by visual comparison between the data and the map.

For more information, see the National Hydrography Dataset Concepts and Contents document (February 2000) available at <http://nhd.usgs.gov/chapter1/index.html>.

Lineage:

Process_Step:

Process_Description:

Each state sent RTI a marked-up map or existing GIS coverage denoting the location and extent of each waterbody. Using the EPA's NHD Reach Indexing Tool (NHD-RIT), event tables were created by conflating the

state's data to NHD. Event identifiers were populated with the §303(d) codes supplied by each states' list.

Process_Date: 20020401

Spatial_Reference_Information:

    Horizontal_Coordinate_System_Definition:

        Geographic:

            Latitude_Resolution: 1

            Longitude_Resolution: 1

            Geographic_Coordinate_Units: Decimal Degrees

        Geodetic_Model:

            Horizontal_Datum_Name: NAD83

            Ellipsoid_Name: GRS 1980

            Semi-major_Axis: 6378137 meters

            Denominator_of_Flattening_Ratio: 298.25722101

Entity_and_Attribute_Information:

    Detailed_Description:

        Entity_Type:

            Entity_Type_Label: Linear event themes.

            Entity_Type_Definition:

                Line event themes apply to linear positions along sections of the NHD Transport and Coastline Reach Theme.

            Entity_Type_Definition_Source:

                EPA's National Hydrography Dataset Reach Indexing Tool (NHD-RIT)

        Attribute:

            Attribute_Label: EVENT_ID

            Attribute_Definition:

                Unique ID for an event created based on date and time when the event was created, and a sequential number to provide uniqueness for events created at the same time.

            Attribute_Definition_Source: System-created number

            Attribute_Domain_Values:

                Range_Domain:

                    Range_Domain_Minimum: 2000010100000100001

                    Range_Domain_Maximum: 9999123124000009999

        Attribute:

            Attribute_Label: F_meas

            Attribute_Definition: Specifies the start point of the event along a route.

Attribute_Definition_Source: EPA's NHD Reach Indexing Tool
Attribute_Domain_Values:
    Range_Domain:
        Range_Domain_Minimum: 0
        Range_Domain_Maximum: 200

Attribute:
    Attribute_Label: T_MEAS
    Attribute_Definition: Specifies to end point of the event along a route.
    Attribute_Definition_Source: EPA's NHD Reach Indexing Tool
    Attribute_Domain_Values:
        Range_Domain:
            Range_Domain_Minimum: 0
            Range_Domain_Maximum: 200

Attribute:
    Attribute_Label: EOFFSET
    Attribute_Definition:
        Offset distance of event from associated NHD route reach location.
    Attribute_Definition_Source: User input
    Attribute_Domain_Values:
        Range_Domain:
            Range_Domain_Minimum: 0
            Range_Domain_Maximum: 999999

Attribute:
    Attribute_Label: DUU_ID
    Attribute_Definition:
        Unique identifier of the digital update unit in the NHD database.
    Attribute_Definition_Source: NHD
    Attribute_Domain_Values:
        Range_Domain:
            Range_Domain_Minimum: 0000000001
            Range_Domain_Maximum: 9999999999

Attribute:
    Attribute_Label: RCH_CODE
    Attribute_Definition:
        Numeric code that uniquely identifies a reach in NHD, consisting of two parts: the first eight digits are the hydrologic unit code of the cataloging unit in which the reach is located; the last six digits are a sequentially, arbitrarily-assigned number.
    Attribute_Definition_Source: NHD
    Attribute_Domain_Values:
        Codeset_Domain:
            Codeset_Name: NHD Reach codes
            Codeset_Source: FIPS/NHD

Attribute:

> *Attribute_Label:* RCH_DATE
>
> *Attribute_Definition:*
>
> > Date that the reach code (Rch_code) was assigned, displayed as YYYYMMDD.
>
> *Attribute_Definition_Source:* NHD
>
> *Attribute_Domain_Values:*
>
> > *Range_Domain:*
> >
> > > *Range_Domain_Minimum:* 19970101
> > >
> > > *Range_Domain_Maximum:* 99991231

Attribute:

> *Attribute_Label:* ATTR_PRG
>
> *Attribute_Definition:* Indicates the attribute type or program being indexed.
>
> *Attribute_Definition_Source:* Unknown
>
> *Attribute_Domain_Values:*
>
> > *Codeset_Domain:*
> >
> > > *Codeset_Name:* Alphanumeric
> > >
> > > *Codeset_Source:* ASCII

Attribute:

> *Attribute_Label:* ATTR_VAL
>
> *Attribute_Definition:*
>
> > Value associated with the attribute program in the field Attr_prg.
>
> *Attribute_Definition_Source:* UNKNOWN
>
> *Attribute_Domain_Values:*
>
> > *Codeset_Domain:*
> >
> > > *Codeset_Name:* Alphanumeric
> > >
> > > *Codeset_Source:* ASCII

Attribute:

> *Attribute_Label:* ENTITY_ID
>
> *Attribute_Definition:*
>
> > Identifier used to aggregate reaches into homogenous units. It is also used to link the event table to external data sources.
>
> *Attribute_Definition_Source:* UNKNOWN
>
> *Attribute_Domain_Values:*
>
> > *Codeset_Domain:*
> >
> > > *Codeset_Name:* Alphanumeric
> > >
> > > *Codeset_Source:* ASCII

Attribute:

> *Attribute_Label:* STATE
>
> *Attribute_Definition:* State abbreviation according to the FIPS standard.
>
> *Attribute_Definition_Source:* User input
>
> *Attribute_Domain_Values:*
>
> > *Codeset_Domain:*

Codeset_Name: Federal Information Processing Standard
Codeset_Source: Two digit FIPS state code (character).

Attribute:

Attribute_Label: Meta_id
Attribute_Definition: Link to the metadata table
Attribute_Definition_Source: Unknown
Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: Alphanumeric
Codeset_Source: ASCII

Attribute:

Attribute_Label: Meters
Attribute_Definition: Length along the reach (in meters).
Attribute_Definition_Source: NHD-RIT
Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 0
Range_Domain_Maximum: 40,000,000

Overview_Description:

Entity_and_Attribute_Overview:

Linear event themes are georeferenced to the National Hydrography Dataset (NHD).

Entity_and_Attribute_Detail_Citation:

The NHD Reach Indexing Tool User's Guide- June 2001.
<http://www.epa.gov/waters/georef/UserGuide.pdf>

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Cary McElhinney
Contact_Organization: US EPA Headquarters

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Distribution_Liability: None

Metadata_Reference_Information:
    Metadata_Date: 20020321
    Metadata_Contact:
        Contact_Information:
            Contact_Person_Primary:
                Contact_Person: Cary McElhinney
                Contact_Organization: US EPA Headquarters
            Contact_Address:
                Address_Type: Mailing address
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                    1200 Pennsylvania Avenue, NW MC 4503T
                City: Washington
                State_or_Province: D.C.
                Postal_Code: 20460
                Country: U.S.A.
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            Contact_Electronic_Mail_Address: Mcelhinney.Cary@epamail.epa.gov
    Metadata_Standard_Name:
        Content Standards for Digital Geospatial Metadata, Federal Geographic Data Committee.
    Metadata_Standard_Version: FGDC-STD-001-1998
    Metadata_Time_Convention: Local TIME
    Metadata_Security_Information:
        Metadata_Security_Classification_System: None
        Metadata_Security_Classification: Unclassified
        Metadata_Security_Handling_Description: None

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